

SEQ. ID. NO.:1

GAGACTGCAGCAGAATATGTAAAATCTCGACTCCCAGAGGCTCTTAAGC
AGCACCTTCAGGATTATGAGAAGGACAAAGAAAACAGTGTTCTGACCTA
CCAGACCATCCTCGAGCAGCAGATCTTGTC AATTGACCGGGAAATGCTG
GAAAAGTTGACAGTCTCCTATGATGAAGCAGGCACAACGTGTTTGATCS
CTCTACTCTCAGATAAAGACCTCACCGTGGCCAACGTTGGTGACTCTCG
GGGAGTCTTGTTGTGACAAAGATGGCAATGCCATCCCCCTTGCTCACGAT
CACAAGCCTTACCAGCTGAAGGAAAGGAAGAGGATAAAGAGAGCTGGTG
GGTTCATCAGCTTTAATGGCTCCTGGAGGGTCCAGGGAATCCTAGCCAT
GTCTCGATCCCTGGGAGACTATCCACTGAAAAATCTCAACGTGGTCATC
CCAGACCCAGACATCTTGACCTTTGACCTGGACAAGCTGCAGCCGGAGT
TCATGATCTTGCCCTCAGATGGCCTGTGGGA : TGCTTTCAGCAATGAAG
AAGCGGTTTCGATTCATCAAGGAGCGCTTGATGAGCCCCACTTTGGGGC
CAAAAGCATCGTCCTGCAGTCCTTTTACAGAGGCTGCCCTGACAACATC
ACTGTCATGGTGGTGAAGTTCAGGAATAGTAGCAAAACAGAAGAGCACT
GAACCTTGCCAGATCTCAGCTGCCCCAACTAGAGGACTCTCAACATAC
TGTTCTCTTCATGTAGTAAAAGGTGTGGGTATAATTAGGATCATGCGTC
CCAACACAGAACCCCTTCCCTGATGGCCTTGAATCCCTTTGGAGTACT
GAGCAGAGGGTTGGTTCCCTTGCTGACACCGCAGAGGCTGCTAAGTTTG
TGTCCCCCAGCCCTTCTATCAGTGTTTGAAACACATACGTAGGTAGCC
ACAGATCCCACATATGAGGCAAAGGAAAGGCAGGCCATATGTTTTCCTT
CTTAATAATGTACTTTT

SEQ. ID. NO.:2

ETAAEYVKSRLPEALKQHLQDYEKDKENSVLTYQTILEQQILSIDREML
EKLTVSYDEAGTTCLIXLLSDKDLTVANVGDSRGVLCDDKGNAIPLSHD
HKPYQLKERKRIKRAGGFISFNQSWRVQGILAMSRSLGDYPLKNLNVVI
PDPDILTFDLCLKLQPEFMILASDGLWDAFSNEEAVRFIKERLDEPHFGA
KSIVLQSFYRGCPDNI TVMVVKFRNSSKTEEH

FIGURE 1

Underlined = deleted in targeting construct

Bold = sequence flanking Neo insert in targeting construct

GAGACTGCAGCAGAATATGTAAAATCTCGACTCCCAGAGGCTCTTAAGCAGCACCTTCAG
GATTATGAGAAGGACAAAGAAAACAGTGTTCTGACCTACCAGACCATCCTCGAGCAGCAG
ATCTTGTCAATTGACCGGAAATGCTGGAAAAGTTGACAGTCTCCTATGATGAAGCAGGC
ACAACGTGTTTGTATCSCTCTACTCTCAGATAAAGACCTCACCGTGGCCAACGTTGGTGAC
TCTCGGGGAGTCTTGTGTGACAAAGATGGCAATGCCATCCCCTTGTCTCACGATCACAAG
CCTTACCAGCTGAAGGAAAGGAAGAGGATAAAGAGAGCTGGTGGGTTTCATCAGCTTTAAT
GGCTCCTGGAGGGTCCAGGGAATCCTAGCCATGTCCTCGATCCCTGGGAGACTATCCACTG
AAAAATCTCAACGTGGTCATCCCAGACCCAGACATCTTGACCTTTGACCTGGACAAGCTG
CAGCCGGAGTTCATGATCTTGGCCTCAGATGGCCTGTGGGA : TGCTTTCAGCAATGAAGA
AGCGGTTCGATTCATCAAGGAGCGCTTGGATGAGCCCCACTTTGGGGCCAAAAGCATCGT
CCTGCAGTCCTTTTACAGAGGCTGCCCTGACAACATCACTGTTCATGGTGGTGAAGTTCAG
GAATAGTAGCAAAACAGAAGAGCACTGAACCCTGCCAGATCTCAGCTGCCCCAAACTAGA
GGACTCTCAACATACTGTTCTCTTCATGTAGTAAAAGGTGTGGGTATAATTAGGATCATG
CGTCCCAACACAGAACCCCTTCCCTGATGGCCTTGAATCCCTTTGGAGTACTGAGCAGA
GGGTGGTTCCCTTGCTGACACCGCAGAGGCTGCTAAGTTTGTGTCCCCCAGCCCTTCT
ATCAGTGTTTGAAACACATACGTAGGTAGCCACAGATCCCACATATGAGGCAAAGGAAAG
GCAGGCCATATGTTTTCTTCTTAATAATGTACTTTT

FIGURE 2A

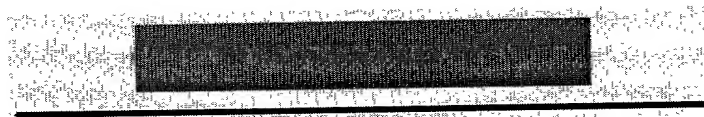
Gene Sequence
Structure *

414 bp

Sequence Deleted

596 bp

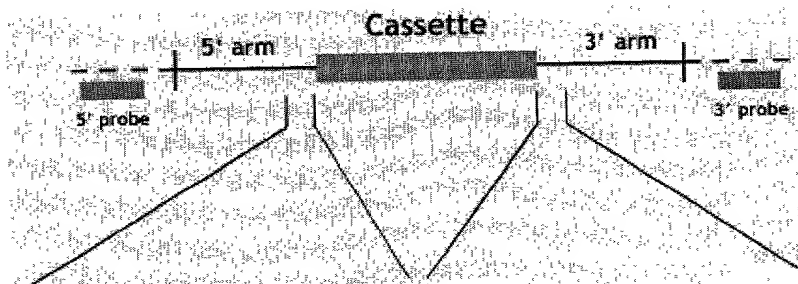
Size of EST
contig: 997 bp



Targeting Vector* (genomic sequence)

LacZ-Neo

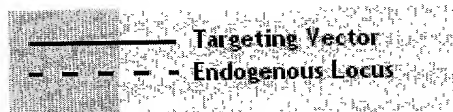
Construct Number: 2867



Arm Length:

5': 3.9 kb

3': 2.9 kb



* Not drawn to scale

5' >GCTGGTGGCCTTGGCAGTGAC
GAAGGTGAAGGAGGGGTGCTTGTG
GCTCAGCTCTGTTGCAGCAGACCA
GCTTGTGGTACACTCAGGAGACC
GGAACAAGCTAACAGGCTCCCTCT
GTCCTTCCAGGTGGGTTTCATCAGC
TTAATGGCTCCTGGAGGGTCCAG
GGAATCCTAGCCATGTCTCGATCC
CTGGGAGACTA<3'
(SEQ ID NO: 3)

5' >TCGTCCTGCAGTCCTTTTACA
GAGGCTGCCCTGACAACATCACTG
TCATGGTGGTGAAGTTCAGGAATA
GTAGCAAAACAGAAGGGCACTGAA
CCCTGCCAGATCTCAGCTGCCCCA
AACTAGAGGACTCTCAACATACTG
TTCTCTTCATGTAGTAAAAGGTGT
GGGTATAATTAGGATCATGCGTCC
CAACACAGAAC<3'
(SEQ ID NO: 4)

FIGURE 2B